



## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 19 78 13 32

### Classification of the application (IPC):

**B25J 9/16, G07F 13/00, G07F 13/06, B25J 11/00, B25J 21/00, B67D 1/00, B67D 1/08, G01F 13/00, A47F 10/06, B67D 1/06**

### Technical fields searched (IPC):

B25J

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	US 2004173103 A1 (WON JAMES [US]) 09 September 2004 (2004-09-09) * abstract; figures 1-7 *	1, 4, 7, 11, 13, 14
Y	* paragraph [0104] - paragraph [0110] * * paragraph [0127] * * paragraph [0130] * * paragraph [0132] - paragraph [0136] *	2, 8, 12, 15
Y	US 2016052770 A1 (RATTI CARLO FILIPPO [IT]) 25 February 2016 (2016-02-25) * abstract; figures 1,7,8,9 * * paragraph [0040] * * paragraph [0056] - paragraph [0064] * * paragraph [0065] * * paragraph [0074] - paragraph [0076] *	2, 8, 12, 15
A	US 2007106422 A1 (JENNINGS CRAIG [US] ET AL) 10 May 2007 (2007-05-10) * abstract; figures 1,3,4 *	1-15
A	US 2005193901 A1 (BUEHLER DAVID B [US]) 08 September 2005 (2005-09-08) * the whole document *	1-15

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search Munich	Date of completion of the search 17 December 2021	Examiner Lumineau, Stéphane
---------------------------	--	--------------------------------

### CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

Disclaimer: this document has been automatically generated using data structured in accordance with WIPO standard ST.36 from the database of search reports of the European Patent Office. For technical reasons, its content and layout may differ from that of the original publication. Only the original published information is legally binding.



## ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 19 78 13 32

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 17-12-2021  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2004173103	A1	09-09-2004	NONE
US 2016052770	A1	25-02-2016	BR 112015025712 A2 18-07-2017 CN 105579204 A 11-05-2016 EP 2983870 A2 17-02-2016 ES 2625556 T3 19-07-2017 JP 6355716 B2 11-07-2018 JP 2016524570 A 18-08-2016 RU 2015145734 A 15-05-2017 SG 11201508256Q A 27-11-2015 US 2016052770 A1 25-02-2016 WO 2014167499 A2 16-10-2014
US 2007106422	A1	10-05-2007	NONE
US 2005193901	A1	08-09-2005	US 2005193901 A1 08-09-2005 US 2013101714 A1 25-04-2013